



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,099	04/13/2004	Thomas Aisenbrey	INT03-006	4534

7590 03/22/2006
Douglas R. Schnabel
1531 Wedgewood Place
Essexville, MI 48732

EXAMINER
LE, THAO X

ART UNIT	PAPER NUMBER
2814	

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/823,099	Applicant(s) AISENBREY ET AL.	
	Examiner Thao X. Le	Art Unit 2814	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-72 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Terminal Disclaimer

1. The terminal disclaimer filed on 17 Feb. 2006 disclaiming the terminal portion of any patent granted on this application, which would extend beyond the expiration date of the Patent 6,947,005 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-19 are rejected under 35 U.S.C. 102(e) as being anticipated by US 2004/02229224 to Dean et al.

Regarding claim 1, Dean discloses an integrated circuit device in fig. 3 comprising: a chip carrier 31 with an integrated circuit die 32 fixably attached to said chip carrier 31; and an antenna structure 34 molded onto said chip carrier 33 and comprising a conductive loaded, resin-based material comprising conductive materials in a base resin host [0047].

Regarding claims 2-4, Dean discloses the device wherein the ratio, by weight, of conductive materials to said resin host between about 0.20 and about 0.40 [0057], wherein conductive materials comprise metal powder [0048], wherein the metal powder is nickel, copper, or silver [0047].

Regarding claims 5-6, Dean discloses the device wherein said metal powder a non-conductive material with metal plating, wherein said metal nickel, copper, silver, or alloys thereof [0047].

Regarding claim 7-9, 13-14, Dean discloses the device wherein metal powder comprises a diameter of between about 3 micron and about 12 micron [0047], wherein materials comprise non-metal powder conductive [0048], wherein said non-metal powder is carbon, graphite, or an amine-based material [0048].

Regarding claims 10-11, Dean discloses the device wherein conductive materials comprise metal powder a combination of metal powder and non-metal powder [0048], wherein materials comprise micron conductive fiber [0048].

Regarding claim 12, Dean discloses the device wherein said micron conductive fiber is nickel plated carbon fiber, stainless steel fiber, copper fiber, silver fiber or combinations thereof [0047]- [0048].

Regarding claims 15-17, Dean discloses the device wherein antenna structure 34 is electrically connected to integrated circuit die 32, wherein electrical connection by direct contact between said conductive loaded resin-based material and metal interconnects 35/36 on a substrate within said chip carrier 31, wherein electrical

connection is by direct contact between said conductive loaded resin-based material and external leads 35 of said chip carrier 31, fig. 3.

Regarding claims 18-19, Dean discloses the device further comprising and encapsulating layer 33 between integrated circuit die 32 and antenna 34 [0075], wherein electrically contacting is through an opening in encapsulating layer 33, fig. 3.

Priority

4. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. [1] as follows:

The later-filed application must be an application for a patent for an invention, which is also disclosed in the prior application (the parent or original nonprovisional application or provisional application). The disclosure of the invention in the parent application and in the later-filed application must be sufficient to comply with the requirements of the first paragraph of 35 U.S.C. 112. See *Transco Products, Inc. v. Performance Contracting, Inc.*, 38 F.3d 551, 32 USPQ2d 1077 (Fed. Cir. 1994).

The disclosure of the prior-filed application, Application No. 10/877092, 10/309429, 10/075778, 60/317808 fail to provide adequate support or enablement in the manner provided by the first paragraph of 35 U.S.C. 112 for one or more claims of this application. The parent applications had been carefully reviewed but failed to find

explicit support the limitation "a chip carrier with an integrated circuit die fixably attached to said chip carrier" recited in claim 1.

Response to Arguments

5. Applicant's arguments filed 17 Feb. 2006 have been fully considered but they are not persuasive. The Applicant argues that the 'circuit board' 31 and "various electronic components" 32 of Dean incorrectly equates to 'chip carrier' and 'integrated circuit' of the instant application. Because the Applicant believes that a chip carrier simply provides a path for input and output signals from the integrated circuit be connected outside of the chip (for example, specification, last paragraph page 2) and the terms "integrated circuit" is known to mean a device where a plurality of interconnected components are formed onto a single material, typically a semiconductor die. The present invention, the use of the term "integrated circuit die" is understood to mean such as device. This is not persuasive because the "chip carrier" is being interpreted as surface of a substrate, such as a circuit board, that a chip or electronics components or can attach to, while the 'electronics component' is generally known or inherently including an integrated circuit or integrated circuit die. Such understanding is well documented in the art, for example US 6815486 col. 11 line 40, 5872338 col. 1 line 16, or 6370750 col. 1 line 8.

In addition, the rejected claims do not include a specific structure of the 'chip carrier' and 'integrated circuit' as discussed by the Applicant. Although the claims are

interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

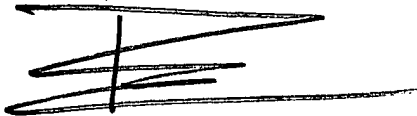
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao X. Le whose telephone number is (571) 272-1708. The examiner can normally be reached on M-F from 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael M. Fahmy can be reached on (571) 272 -1705. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2814

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, consisting of several horizontal strokes and a vertical line intersecting them, forming a stylized 'Z' or 'L' shape.

Thao X. Le
15 Mar. 2006